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SEQUENCE LISTING

<110> Jensenius, Jens Chr.
Thiel, Steffen

<120> MASP-2 COMPLEMENT-FIXING ENZYME, AND
USES FOR IT

<130> 09011-002002

<140> 09/874,198
<141> 2001-06-04

<150> 09/054,218
<151> 1998-04-02

<150> 60/042,678
<151> 1997-04-03

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<170> FastSEQ for Windows Version 4.0

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<212> PRT
<213> Homo sapiens

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Thr Leu Thr Ala Pro Pro Gly Tyr Arg
35 40

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20 25 30
Pro Gly Phe Pro Gly Glu Tyr Ala Asn Asp Gln Glu Arg Arg Trp Thr
35 40 45
Leu Thr Ala Pro Pro Gly Tyr Arg Leu Arg Leu Tyr Phe Thr His Phe
50 55 60
Asp Leu Glu Leu Ser His Leu Cys Glu Tyr Asp Phe Val Lys Leu Ser
65 70 75 80
Ser Gly Ala Lys Val Leu Ala Thr Leu Cys Gly Gln Glu Ser Thr Asp
85 90 95
Thr Glu Arg Ala Pro Gly Lys Asp Thr Phe Tyr Ser Leu Gly Ser Ser
100 105 110

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Leu Asp Ile Thr Phe Arg Ser Asp Tyr Ser Asn Glu Lys Pro Phe Thr
        115                 120                 125
Gly Phe Glu Ala Phe Tyr Ala Ala Glu Asp Ile Asp Glu Cys Gln Val
    130                 135                 140
Ala Pro Gly Glu Ala Pro Thr Cys Asp His His Cys His Asn His Leu
145                 150                 155                 160
Gly Gly Phe Tyr Cys Ser Cys Arg Ala Gly Tyr Val Leu His Arg Asn
                165                 170                 175
Lys Arg Thr Cys Ser Ala Leu Cys Ser Gly Gln Val Phe Thr Gln Arg
            180                 185                 190
Ser Gly Glu Leu Ser Ser Pro Glu Tyr Pro Arg Pro Tyr Pro Lys Leu
        195                 200                 205
Ser Ser Cys Thr Tyr Ser Ile Ser Leu Glu Glu Gly Phe Ser Val Ile
    210                 215                 220
Leu Asp Phe Val Glu Ser Phe Asp Val Glu Thr His Pro Glu Thr Leu
225                 230                 235                 240
Cys Pro Tyr Asp Phe Leu Lys Ile Gln Thr Asp Arg Glu Glu His Gly
                245                 250                 255
Pro Phe Cys Gly Lys Thr Leu Pro His Arg Ile Glu Thr Lys Ser Asn
            260                 265                 270
Thr Val Thr Ile Thr Phe Val Thr Asp Glu Ser Gly Asp His Thr Gly
        275                 280                 285
Trp Lys Ile His Tyr Thr Ser Thr Ala Gln Pro Cys Pro Tyr Pro Met
    290                 295                 300
Ala Pro Pro Asn Gly His Val Ser Pro Val Gln Ala Lys Tyr Ile Leu
305                 310                 315                 320
Lys Asp Ser Phe Ser Ile Phe Cys Glu Thr Gly Tyr Glu Leu Leu Gln
                325                 330                 335
Gly His Leu Pro Leu Lys Ser Phe Thr Ala Val Cys Gln Lys Asp Gly
            340                 345                 350
Ser Trp Asp Arg Pro Met Pro Ala Cys Ser Ile Val Asp Cys Gly Pro
        355                 360                 365
Pro Asp Asp Leu Pro Ser Gly Arg Val Glu Tyr Ile Thr Gly Pro Gly
    370                 375                 380
Val Thr Thr Tyr Lys Ala Val Ile Gln Tyr Ser Cys Glu Glu Thr Phe
385                 390                 395                 400
Tyr Thr Met Lys Val Asn Asp Gly Lys Tyr Val Cys Glu Ala Asp Gly
                405                 410                 415
Phe Trp Thr Ser Ser Lys Gly Glu Lys Ser Leu Pro Val Cys Glu Pro
            420                 425                 430
Val Cys Gly Leu Ser Ala Arg Thr Thr Gly Gly Arg Ile Tyr Gly Gly
        435                 440                 445
Gln Lys Ala Lys Pro Gly Asp Phe Pro Trp Gln Val Leu Ile Leu Gly
    450                 455                 460
Gly Thr Thr Ala Ala Gly Ala Leu Leu Tyr Asp Asn Trp Val Leu Thr
465                 470                 475                 480
Ala Ala His Ala Val Tyr Glu Gln Lys His Asp Ala Ser Ala Leu Asp
                485                 490                 495
Ile Arg Met Gly Thr Leu Lys Arg Leu Ser Pro His Tyr Thr Gln Ala
            500                 505                 510
Trp Ser Glu Ala Val Phe Ile His Glu Gly Tyr Thr His Asp Ala Gly
        515                 520                 525
Phe Asp Asn Asp Ile Ala Leu Ile Lys Leu Asn Asn Lys Val Val Ile
    530                 535                 540
Asn Ser Asn Ile Thr Pro Ile Cys Leu Pro Arg Lys Glu Ala Glu Ser
545                 550                 555                 560
Phe Met Arg Thr Asp Asp Ile Gly Thr Ala Ser Gly Trp Gly Leu Thr
```

```
                565                 570                 575
Gln Arg Gly Phe Leu Ala Arg Asn Leu Met Tyr Val Asp Ile Pro Ile
            580                 585                 590
Val Asp His Gln Lys Cys Thr Ala Ala Tyr Glu Lys Pro Pro Tyr Pro
        595                 600                 605
Arg Gly Ser Val Thr Ala Asn Met Leu Cys Ala Gly Leu Glu Ser Gly
    610                 615                 620
Gly Lys Asp Ser Cys Arg Gly Asp Ser Gly Gly Ala Leu Val Phe Leu
625                 630                 635                 640
Asp Ser Glu Thr Glu Arg Trp Phe Val Gly Gly Ile Val Ser Trp Gly
                645                 650                 655
Ser Met Asn Cys Gly Glu Ala Gly Gln Tyr Gly Val Tyr Thr Lys Val
            660                 665                 670
Ile Asn Tyr Ile Pro Trp Ile Glu Asn Ile Ile Ser Asp Phe
        675                 680                 685
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<210> 3
<211> 2475
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<213> Homo sapiens

<220>
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                                        Met Arg Leu Leu Thr Leu
                                         1               5

ctg ggc ctt ctg tgt ggc tcg gtg gcc acc ccc tta ggc ccg aag tgg      102
Leu Gly Leu Leu Cys Gly Ser Val Ala Thr Pro Leu Gly Pro Lys Trp
             10                  15                  20

cct gaa cct gtg ttc ggg cgc ctg gca tcc ccc ggc ttt cca ggg gag      150
Pro Glu Pro Val Phe Gly Arg Leu Ala Ser Pro Gly Phe Pro Gly Glu
         25                  30                  35

tat gcc aat gac cag gag cgg cgc tgg acc ctg act gca ccc ccc ggc      198
Tyr Ala Asn Asp Gln Glu Arg Arg Trp Thr Leu Thr Ala Pro Pro Gly
     40                  45                  50

tac cgc ctg cgc ctc tac ttc acc cac ttc gac ctg gag ctc tcc cac      246
Tyr Arg Leu Arg Leu Tyr Phe Thr His Phe Asp Leu Glu Leu Ser His
 55                  60                  65                  70

ctc tgc gag tac gac ttc gtc aag ctg agc tcg ggg gcc aag gtg ctg      294
Leu Cys Glu Tyr Asp Phe Val Lys Leu Ser Ser Gly Ala Lys Val Leu
                 75                  80                  85

gcc acg ctg tgc ggg cag gag agc aca gac acg gag cgg gcc cct ggc      342
Ala Thr Leu Cys Gly Gln Glu Ser Thr Asp Thr Glu Arg Ala Pro Gly
             90                  95                 100

aag gac act ttc tac tcg ctg ggc tcc agc ctg gac att acc ttc cgc      390
Lys Asp Thr Phe Tyr Ser Leu Gly Ser Ser Leu Asp Ile Thr Phe Arg
        105                 110                 115
```

```
tcc gac tac tcc aac gag aag ccg ttc acg ggg ttc gag gcc ttc tat      438
Ser Asp Tyr Ser Asn Glu Lys Pro Phe Thr Gly Phe Glu Ala Phe Tyr
    120                 125                 130

gca gcc gag gac att gac gag tgc cag gtg gcc ccg gga gag gcg ccc      486
Ala Ala Glu Asp Ile Asp Glu Cys Gln Val Ala Pro Gly Glu Ala Pro
135                 140                 145                 150

acc tgc gac cac cac tgc cac aac cac ctg ggc ggt ttc tac tgc tcc      534
Thr Cys Asp His His Cys His Asn His Leu Gly Gly Phe Tyr Cys Ser
                155                 160                 165

tgc cgc gca ggc tac gtc ctg cac cgt aac aag cgc acc tgc tca gcc      582
Cys Arg Ala Gly Tyr Val Leu His Arg Asn Lys Arg Thr Cys Ser Ala
            170                 175                 180

ctg tgc tcc ggc cag gtc ttc acc cag agg tct ggg gag ctc agc agc      630
Leu Cys Ser Gly Gln Val Phe Thr Gln Arg Ser Gly Glu Leu Ser Ser
        185                 190                 195

cct gaa tac cca cgg ccg tat ccc aaa ctc tcc agt tgc act tac agc      678
Pro Glu Tyr Pro Arg Pro Tyr Pro Lys Leu Ser Ser Cys Thr Tyr Ser
    200                 205                 210

atc agc ctg gag gag ggg ttc agt gtc att ctg gac ttt gtg gag tcc      726
Ile Ser Leu Glu Glu Gly Phe Ser Val Ile Leu Asp Phe Val Glu Ser
215                 220                 225                 230

ttc gat gtg gag aca cac cct gaa acc ctg tgt ccc tac gac ttt ctc      774
Phe Asp Val Glu Thr His Pro Glu Thr Leu Cys Pro Tyr Asp Phe Leu
                235                 240                 245

aag att caa aca gac aga gaa gaa cat ggc cca ttc tgt ggg aag aca      822
Lys Ile Gln Thr Asp Arg Glu Glu His Gly Pro Phe Cys Gly Lys Thr
            250                 255                 260

ttg ccc cac agg att gaa aca aaa agc aac acg gtg acc atc acc ttt      870
Leu Pro His Arg Ile Glu Thr Lys Ser Asn Thr Val Thr Ile Thr Phe
        265                 270                 275

gtc aca gat gaa tca gga gac cac aca ggc tgg aag atc cac tac acg      918
Val Thr Asp Glu Ser Gly Asp His Thr Gly Trp Lys Ile His Tyr Thr
    280                 285                 290

agc aca gcg cag cct tgc cct tat ccg atg gcg cca cct aat ggc cac      966
Ser Thr Ala Gln Pro Cys Pro Tyr Pro Met Ala Pro Pro Asn Gly His
295                 300                 305                 310

gtt tca cct gtg caa gcc aaa tac atc ctg aaa gac agc ttc tcc atc     1014
Val Ser Pro Val Gln Ala Lys Tyr Ile Leu Lys Asp Ser Phe Ser Ile
                315                 320                 325

ttt tgc gag act ggc tat gag ctt ctg caa ggt cac ttg ccc ctg aaa     1062
Phe Cys Glu Thr Gly Tyr Glu Leu Leu Gln Gly His Leu Pro Leu Lys
            330                 335                 340
```

```
tcc ttt act gca gtt tgt cag aaa gat gga tct tgg gac cgg cca atg     1110
Ser Phe Thr Ala Val Cys Gln Lys Asp Gly Ser Trp Asp Arg Pro Met
        345                 350                 355

ccc gcg tgc agc att gtt gac tgt ggc cct cct gat gat cta ccc agt     1158
Pro Ala Cys Ser Ile Val Asp Cys Gly Pro Pro Asp Asp Leu Pro Ser
    360                 365                 370

ggc cga gtg gag tac atc aca ggt cct gga gtg acc acc tac aaa gct     1206
Gly Arg Val Glu Tyr Ile Thr Gly Pro Gly Val Thr Thr Tyr Lys Ala
375                 380                 385                 390

gtg att cag tac agc tgt gaa gag acc ttc tac aca atg aaa gtg aat     1254
Val Ile Gln Tyr Ser Cys Glu Glu Thr Phe Tyr Thr Met Lys Val Asn
                395                 400                 405

gat ggt aaa tat gtg tgt gag gct gat gga ttc tgg acg agc tcc aaa     1302
Asp Gly Lys Tyr Val Cys Glu Ala Asp Gly Phe Trp Thr Ser Ser Lys
            410                 415                 420

gga gaa aaa tca ctc cca gtc tgt gag cct gtt tgt gga cta tca gcc     1350
Gly Glu Lys Ser Leu Pro Val Cys Glu Pro Val Cys Gly Leu Ser Ala
        425                 430                 435

cgc aca aca gga ggg cgt ata tat gga ggg caa aag gca aaa cct ggt     1398
Arg Thr Thr Gly Gly Arg Ile Tyr Gly Gly Gln Lys Ala Lys Pro Gly
    440                 445                 450

gat ttt cct tgg caa gtc ctg ata tta ggt gga acc aca gca gca ggt     1446
Asp Phe Pro Trp Gln Val Leu Ile Leu Gly Gly Thr Thr Ala Ala Gly
455                 460                 465                 470

gca ctt tta tat gac aac tgg gtc cta aca gct gct cat gcc gtc tat     1494
Ala Leu Leu Tyr Asp Asn Trp Val Leu Thr Ala Ala His Ala Val Tyr
                475                 480                 485

gag caa aaa cat gat gca tcc gcc ctg gac att cga atg ggc acc ctg     1542
Glu Gln Lys His Asp Ala Ser Ala Leu Asp Ile Arg Met Gly Thr Leu
            490                 495                 500

aaa aga cta tca cct cat tat aca caa gcc tgg tct gaa gct gtt ttt     1590
Lys Arg Leu Ser Pro His Tyr Thr Gln Ala Trp Ser Glu Ala Val Phe
        505                 510                 515

ata cat gaa ggt tat act cat gat gct ggc ttt gac aat gac ata gca     1638
Ile His Glu Gly Tyr Thr His Asp Ala Gly Phe Asp Asn Asp Ile Ala
    520                 525                 530

ctg att aaa ttg aat aac aaa gtt gta atc aat agc aac atc acg cct     1686
Leu Ile Lys Leu Asn Asn Lys Val Val Ile Asn Ser Asn Ile Thr Pro
535                 540                 545                 550

att tgt ctg cca aga aaa gaa gct gaa tcc ttt atg agg aca gat gac     1734
Ile Cys Leu Pro Arg Lys Glu Ala Glu Ser Phe Met Arg Thr Asp Asp
                555                 560                 565

att gga act gca tct gga tgg gga tta acc caa agg ggt ttt ctt gct     1782
```

```
Ile Gly Thr Ala Ser Gly Trp Gly Leu Thr Gln Arg Gly Phe Leu Ala
            570                 575                 580

aga aat cta atg tat gtc gac ata ccg att gtt gac cat caa aaa tgt     1830
Arg Asn Leu Met Tyr Val Asp Ile Pro Ile Val Asp His Gln Lys Cys
        585                 590                 595

act gct gca tat gaa aag cca ccc tat cca agg gga agt gta act gct     1878
Thr Ala Ala Tyr Glu Lys Pro Pro Tyr Pro Arg Gly Ser Val Thr Ala
    600                 605                 610

aac atg ctt tgt gct ggc tta gaa agt ggg ggc aag gac agc tgc aga     1926
Asn Met Leu Cys Ala Gly Leu Glu Ser Gly Gly Lys Asp Ser Cys Arg
615                 620                 625                 630

ggt gac agc gga ggg gca ctg gtg ttt cta gat agt gaa aca gag agg     1974
Gly Asp Ser Gly Gly Ala Leu Val Phe Leu Asp Ser Glu Thr Glu Arg
                635                 640                 645

tgg ttt gtg gga gga ata gtg tcc tgg ggt tcc atg aat tgt ggg gaa     2022
Trp Phe Val Gly Gly Ile Val Ser Trp Gly Ser Met Asn Cys Gly Glu
            650                 655                 660

gca ggt cag tat gga gtc tac aca aaa gtt att aac tat att ccc tgg     2070
Ala Gly Gln Tyr Gly Val Tyr Thr Lys Val Ile Asn Tyr Ile Pro Trp
        665                 670                 675

atc gag aac ata att agt gat ttt taacttgcgt gtctgcagtc aaggattctt    2124
Ile Glu Asn Ile Ile Ser Asp Phe
    680                 685

catttttaga aatgcctgtg aagaccttgg cagcgacgtg gctcgagaag cattcatcat   2184
tactgtggac atggcagttg ttgctccacc caaaaaaaca gactccaggt gaggctgctg   2244
tcatttctcc acttgccagt ttaattccag ccttacccat tgactcaagg ggacataaac   2304
cacgagagtg acagtcatct ttgcccaccc agtgtaatgt cactgctcaa attacatttc   2364
attaccttaa aaagccagtc tcttttcata ctggctgttg gcatttctgt aaactgcctg   2424
tccatgctct ttgtttttaa acttgttctt attgaaaaaa aaaaaaaaaa a            2475

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<212> PRT
<213> Homo sapiens

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Glu Tyr Ala Asn Asp Gln Glu Arg
 1               5

<210> 5
<211> 8
<212> PRT
<213> Homo sapiens

<400> 5
Lys Pro Phe Thr Gly Phe Glu Ala
 1               5

<210> 6
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<211> 679
<212> PRT
<213> Homo sapiens

<400> 6

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His Thr Val Glu Leu Asn Asn Met Phe Gly Gln Ile Gln Ser Pro Gly
 1               5                  10                  15
Tyr Pro Asp Ser Tyr Pro Ser Asp Ser Glu Val Thr Trp Asn Ile Thr
            20                  25                  30
Val Pro Asp Gly Phe Arg Ile Lys Leu Tyr Phe Met His Phe Asn Leu
        35                  40                  45
Glu Ser Ser Tyr Leu Cys Glu Tyr Asp Tyr Val Lys Val Glu Thr Glu
    50                  55                  60
Asp Gln Val Leu Ala Thr Phe Cys Gly Arg Glu Thr Thr Asp Thr Glu
65                  70                  75                  80
Gln Thr Pro Gly Gln Glu Val Val Leu Ser Pro Gly Ser Phe Met Ser
                85                  90                  95
Ile Thr Phe Arg Ser Asp Phe Ser Asn Glu Glu Arg Phe Thr Gly Phe
            100                 105                 110
Asp Ala His Tyr Met Ala Val Asp Val Asp Glu Cys Lys Glu Arg Glu
        115                 120                 125
Asp Glu Glu Leu Ser Cys Asp His Tyr Cys His Asn Tyr Ile Gly Gly
    130                 135                 140
Tyr Tyr Cys Ser Cys Arg Phe Gly Tyr Ile Leu His Thr Asp Asn Arg
145                 150                 155                 160
Thr Cys Arg Val Glu Cys Ser Asp Asn Leu Phe Thr Gln Arg Thr Gly
                165                 170                 175
Val Ile Thr Ser Pro Asp Phe Pro Asn Pro Tyr Pro Lys Ser Ser Glu
            180                 185                 190
Cys Leu Tyr Thr Ile Glu Leu Glu Glu Gly Phe Met Val Asn Leu Gln
        195                 200                 205
Phe Glu Asp Ile Phe Asp Ile Glu Asp His Pro Glu Val Pro Cys Pro
    210                 215                 220
Tyr Asp Tyr Ile Lys Ile Lys Val Gly Pro Lys Val Leu Gly Pro Phe
225                 230                 235                 240
Cys Gly Glu Lys Ala Pro Glu Pro Ile Ser Thr Gln Ser His Ser Val
                245                 250                 255
Leu Ile Leu Phe His Ser Asp Asn Ser Gly Glu Asn Arg Gly Trp Arg
            260                 265                 270
Leu Ser Tyr Arg Ala Ala Gly Asn Glu Pro Glu Leu Gln Pro Pro Val
        275                 280                 285
His Gly Lys Ile Glu Pro Ser Gln Ala Lys Tyr Phe Phe Lys Asp Gln
    290                 295                 300
Val Leu Val Ser Cys Asp Thr Gly Tyr Lys Val Leu Lys Asp Asn Val
305                 310                 315                 320
Glu Met Asp Thr Phe Gln Ile Glu Cys Leu Lys Asp Gly Thr Trp Ser
                325                 330                 335
Asn Lys Ile Pro Thr Cys Lys Ile Val Asp Cys Arg Ala Pro Gly Glu
            340                 345                 350
Leu Glu His Gly Leu Ile Thr Phe Ser Thr Arg Asn Asn Leu Thr Thr
        355                 360                 365
Tyr Lys Ser Glu Ile Lys Tyr Ser Cys Gln Glu Pro Tyr Tyr Lys Met
    370                 375                 380
Leu Asn Asn Asn Thr Gly Ile Tyr Thr Cys Ser Ala Gln Gly Val Trp
385                 390                 395                 400
Met Asn Lys Val Leu Gly Arg Ser Leu Pro Thr Cys Leu Pro Val Cys
                405                 410                 415
```

```
Gly Leu Pro Lys Phe Ser Arg Lys Leu Met Ala Arg Ile Phe Asn Gly
            420                 425                 430
Arg Pro Ala Gln Lys Gly Thr Thr Pro Trp Ile Ala Met Leu Ser His
        435                 440                 445
Leu Asn Gly Gln Pro Phe Cys Gly Gly Ser Leu Leu Gly Ser Ser Trp
    450                 455                 460
Ile Val Thr Ala Ala His Cys Leu His Gln Ser Leu Asp Pro Lys Asp
465                 470                 475                 480
Pro Thr Leu Arg Asp Ser Asp Leu Leu Ser Pro Ser Asp Phe Lys Ile
                485                 490                 495
Ile Leu Gly Lys His Trp Arg Leu Arg Ser Asp Glu Asn Glu Gln His
            500                 505                 510
Leu Gly Val Lys His Thr Thr Leu His Pro Lys Tyr Asp Pro Asn Thr
        515                 520                 525
Phe Glu Asn Asp Val Ala Leu Val Glu Leu Leu Glu Ser Pro Val Leu
    530                 535                 540
Asn Ala Phe Val Met Pro Ile Cys Leu Pro Glu Gly Pro Gln Gln Glu
545                 550                 555                 560
Gly Ala Met Val Ile Val Ser Gly Trp Gly Lys Gln Phe Leu Gln Arg
                565                 570                 575
Phe Pro Glu Thr Leu Met Glu Ile Glu Ile Pro Ile Val Asp His Ser
            580                 585                 590
Thr Cys Gln Lys Ala Tyr Ala Pro Leu Lys Lys Lys Val Thr Arg Asp
        595                 600                 605
Met Ile Cys Ala Gly Glu Lys Glu Gly Gly Lys Asp Ala Cys Ser Gly
    610                 615                 620
Asp Ser Gly Gly Pro Met Val Thr Leu Asn Arg Glu Arg Gly Gln Trp
625                 630                 635                 640
Tyr Leu Val Gly Thr Val Ser Trp Gly Asp Asp Cys Gly Lys Lys Asp
                645                 650                 655
Arg Tyr Gly Val Tyr Ser Tyr Ile His His Asn Lys Asp Trp Ile Gln
            660                 665                 670
Arg Val Thr Gly Val Arg Asn
        675
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<210> 7
<211> 688
<212> PRT
<213> Homo sapiens

<400> 7

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Ser Ile Pro Ile Pro Gln Lys Leu Phe Gly Glu Val Thr Ser Pro Leu
 1               5                  10                  15
Phe Pro Lys Pro Tyr Pro Asn Asn Phe Glu Thr Thr Thr Val Ile Thr
            20                  25                  30
Val Pro Thr Gly Tyr Arg Val Lys Leu Val Phe Gln Gln Phe Asp Leu
        35                  40                  45
Glu Pro Ser Glu Gly Cys Phe Tyr Asp Tyr Val Lys Ile Ser Ala Asp
    50                  55                  60
Lys Lys Ser Leu Gly Arg Phe Cys Gly Gln Leu Gly Ser Pro Leu Gly
65                  70                  75                  80
Asn Pro Pro Gly Lys Lys Glu Phe Met Ser Gln Gly Asn Lys Met Leu
                85                  90                  95
Leu Thr Phe His Thr Asp Phe Ser Asn Glu Glu Asn Gly Thr Ile Met
            100                 105                 110
Phe Tyr Lys Gly Phe Leu Ala Tyr Tyr Gln Ala Val Asp Leu Asp Glu
        115                 120                 125
```

```
Cys Ala Ser Arg Ser Lys Ser Gly Glu Glu Asp Pro Gln Pro Gln Cys
    130                 135                 140
Gln His Leu Cys His Asn Tyr Val Gly Gly Tyr Phe Cys Ser Cys Arg
145                 150                 155                 160
Pro Gly Tyr Glu Leu Gln Glu Asp Arg His Ser Cys Gln Ala Glu Cys
                165                 170                 175
Ser Ser Glu Leu Tyr Thr Glu Ala Ser Gly Tyr Ile Ser Ser Leu Glu
            180                 185                 190
Tyr Pro Arg Ser Tyr Pro Pro Asp Leu Arg Cys Asn Tyr Ser Ile Arg
        195                 200                 205
Val Glu Arg Gly Leu Thr Leu His Leu Lys Phe Leu Glu Pro Phe Asp
    210                 215                 220
Ile Asp Asp His Gln Gln Val His Cys Pro Tyr Asp Gln Leu Gln Ile
225                 230                 235                 240
Tyr Ala Asn Gly Lys Asn Ile Gly Glu Phe Cys Gly Lys Gln Arg Pro
                245                 250                 255
Pro Asp Leu Asp Thr Ser Ser Asn Ala Val Asp Leu Leu Phe Phe Thr
            260                 265                 270
Asp Glu Ser Gly Asp Ser Arg Gly Trp Lys Leu Arg Tyr Thr Thr Glu
        275                 280                 285
Ile Ile Lys Cys Pro Gln Pro Lys Thr Leu Asp Glu Phe Thr Ile Ile
    290                 295                 300
Gln Asn Leu Gln Pro Gln Tyr Gln Phe Arg Asp Tyr Phe Ile Ala Thr
305                 310                 315                 320
Cys Lys Gln Gly Tyr Gln Leu Ile Glu Gly Asn Gln Val Leu His Ser
                325                 330                 335
Phe Thr Ala Val Cys Gln Asp Asp Gly Thr Trp His Arg Ala Met Pro
            340                 345                 350
Arg Cys Lys Ile Lys Asp Cys Gly Gln Pro Arg Asn Leu Pro Asn Gly
        355                 360                 365
Asp Phe Arg Tyr Thr Thr Thr Met Gly Val Asn Thr Tyr Lys Ala Arg
    370                 375                 380
Ile Gln Tyr Tyr Cys His Glu Pro Tyr Tyr Lys Met Gln Thr Arg Ala
385                 390                 395                 400
Gly Ser Arg Glu Ser Glu Gln Gly Val Tyr Thr Cys Thr Ala Gln Gly
                405                 410                 415
Ile Trp Lys Asn Glu Gln Lys Gly Glu Lys Ile Pro Arg Cys Leu Pro
            420                 425                 430
Val Cys Gly Lys Pro Val Asn Pro Val Glu Gln Arg Gln Arg Ile Ile
        435                 440                 445
Gly Gly Gln Lys Ala Lys Met Gly Asn Phe Pro Trp Gln Val Phe Thr
    450                 455                 460
Asn Ile His Gly Arg Gly Gly Gly Ala Leu Leu Gly Asp Arg Trp Ile
465                 470                 475                 480
Leu Thr Ala Ala His Thr Leu Tyr Pro Lys Glu His Glu Ala Gln Ser
                485                 490                 495
Asn Ala Ser Leu Asp Val Phe Leu Gly His Thr Asn Val Glu Glu Leu
            500                 505                 510
Met Lys Leu Gly Asn His Pro Ile Arg Arg Val Ser Val His Pro Asp
        515                 520                 525
Tyr Arg Gln Asp Glu Ser Tyr Asn Phe Glu Gly Asp Ile Ala Leu Leu
    530                 535                 540
Glu Leu Glu Asn Ser Val Thr Leu Gly Pro Asn Leu Leu Pro Ile Cys
545                 550                 555                 560
Leu Pro Asp Asn Asp Thr Phe Tyr Asp Leu Gly Leu Met Gly Tyr Val
                565                 570                 575
Ser Gly Phe Gly Val Met Glu Glu Lys Ile Ala His Asp Leu Arg Phe
```

```
            580                 585                 590
Val Arg Leu Pro Val Ala Asn Pro Gln Ala Cys Glu Asn Trp Leu Arg
        595                 600                 605
Gly Lys Asn Arg Met Asp Val Phe Ser Gln Asn Met Phe Cys Ala Gly
    610                 615                 620
His Pro Ser Leu Lys Gln Asp Ala Cys Gln Gly Asp Ser Gly Gly Val
625                 630                 635                 640
Phe Ala Val Arg Asp Pro Asn Thr Asp Arg Trp Val Ala Thr Gly Ile
                645                 650                 655
Val Ser Trp Gly Ile Gly Cys Ser Arg Gly Tyr Gly Phe Tyr Thr Lys
            660                 665                 670
Val Leu Asn Tyr Val Asp Trp Ile Lys Lys Glu Met Glu Glu Glu Asp
        675                 680                 685

<210> 8
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<212> PRT
<213> Homo sapiens

<400> 8
Glu Pro Thr Met Tyr Gly Glu Ile Leu Ser Pro Asn Tyr Pro Gln Ala
 1               5                  10                  15
Tyr Pro Ser Glu Val Glu Lys Ser Trp Asp Ile Glu Val Pro Glu Gly
            20                  25                  30
Tyr Gly Ile His Leu Tyr Phe Thr His Leu Asp Ile Glu Leu Ser Glu
        35                  40                  45
Asn Cys Ala Tyr Asp Ser Val Gln Ile Ile Ser Gly Asp Thr Glu Glu
    50                  55                  60
Gly Arg Leu Cys Gly Gln Arg Ser Ser Asn Asn Pro His Ser Pro Ile
65                  70                  75                  80
Val Glu Glu Phe Gln Val Pro Tyr Asn Lys Leu Gln Val Ile Phe Lys
                85                  90                  95
Ser Asp Phe Ser Asn Glu Glu Arg Phe Thr Gly Phe Ala Ala Tyr Tyr
            100                 105                 110
Val Ala Thr Asp Ile Asn Glu Cys Thr Asp Phe Val Asp Val Pro Cys
        115                 120                 125
Ser His Phe Cys Asn Asn Phe Ile Gly Gly Tyr Phe Cys Ser Cys Pro
    130                 135                 140
Pro Glu Tyr Phe Leu His Asp Asp Met Lys Asn Cys Gly Val Asn Cys
145                 150                 155                 160
Ser Gly Asp Val Phe Thr Ala Leu Ile Gly Glu Ile Ala Ser Pro Asn
                165                 170                 175
Tyr Pro Lys Pro Tyr Pro Glu Asn Ser Arg Cys Glu Tyr Gln Ile Arg
            180                 185                 190
Leu Glu Lys Gly Phe Gln Val Val Val Thr Leu Arg Arg Glu Asp Phe
        195                 200                 205
Asp Val Glu Ala Ala Asp Ser Ala Gly Asn Cys Leu Asp Ser Leu Val
    210                 215                 220
Phe Val Ala Gly Asp Arg Gln Phe Gly Pro Tyr Cys Gly His Gly Phe
225                 230                 235                 240
Pro Gly Pro Leu Asn Ile Glu Thr Lys Ser Asn Ala Leu Asp Ile Ile
                245                 250                 255
Phe Gln Thr Asp Leu Thr Gly Gln Lys Lys Gly Trp Lys Leu Arg Tyr
            260                 265                 270
His Gly Asp Pro Met Pro Cys Pro Lys Glu Asp Thr Pro Asn Ser Val
        275                 280                 285
Trp Glu Pro Ala Lys Ala Lys Tyr Val Phe Arg Asp Val Val Gln Ile
```

```
    290                 295                 300
Thr Cys Leu Asp Gly Phe Glu Val Val Glu Gly Arg Val Gly Ala Thr
305                 310                 315                 320
Ser Phe Tyr Ser Thr Cys Gln Ser Asn Gly Lys Trp Ser Asn Ser Lys
                325                 330                 335
Leu Lys Cys Gln Pro Val Asp Cys Gly Ile Pro Glu Ser Ile Glu Asn
            340                 345                 350
Gly Lys Val Glu Asp Pro Glu Ser Thr Leu Phe Gly Ser Val Ile Arg
        355                 360                 365
Tyr Thr Cys Glu Glu Pro Tyr Tyr Tyr Met Glu Asn Gly Gly Gly Gly
    370                 375                 380
Glu Tyr His Cys Ala Gly Asn Gly Ser Trp Val Asn Glu Val Leu Gly
385                 390                 395                 400
Pro Glu Leu Pro Lys Cys Val Pro Val Cys Gly Val Pro Arg Glu Pro
                405                 410                 415
Phe Glu Glu Lys Gln Arg Ile Ile Gly Gly Ser Asp Ala Asp Ile Lys
            420                 425                 430
Asn Phe Pro Trp Gln Val Phe Phe Asp Asn Pro Trp Ala Gly Gly Ala
        435                 440                 445
Leu Ile Asn Glu Tyr Trp Val Leu Thr Ala Ala His Val Val Glu Gly
    450                 455                 460
Asn Arg Glu Pro Thr Met Tyr Val Gly Ser Thr Ser Val Gln Thr Ser
465                 470                 475                 480
Arg Leu Ala Lys Ser Lys Met Leu Thr Pro Glu His Val Phe Ile His
                485                 490                 495
Pro Gly Trp Lys Leu Leu Glu Val Pro Glu Gly Arg Thr Asn Phe Asp
            500                 505                 510
Asn Asp Ile Ala Leu Val Arg Leu Lys Asp Pro Val Lys Met Gly Pro
        515                 520                 525
Thr Val Ser Pro Ile Cys Leu Pro Gly Thr Ser Ser Asp Tyr Asn Leu
    530                 535                 540
Met Asp Gly Asp Leu Gly Leu Ile Ser Gly Trp Gly Arg Thr Glu Lys
545                 550                 555                 560
Arg Asp Arg Ala Val Arg Leu Lys Ala Ala Arg Leu Pro Val Ala Pro
                565                 570                 575
Leu Arg Lys Cys Lys Glu Val Lys Val Glu Lys Pro Thr Ala Asp Ala
            580                 585                 590
Glu Ala Tyr Val Phe Thr Pro Asn Met Ile Cys Ala Gly Gly Glu Lys
        595                 600                 605
Gly Met Asp Ser Cys Lys Gly Asp Ser Gly Gly Ala Phe Ala Val Gln
    610                 615                 620
Asp Pro Asn Asp Lys Thr Lys Phe Tyr Ala Ala Gly Leu Val Ser Trp
625                 630                 635                 640
Gly Pro Gln Cys Gly Thr Tyr Gly Leu Tyr Thr Arg Val Lys Asn Tyr
                645                 650                 655
Val Asp Trp Ile Met Lys Thr Met Gln Glu Asn Ser Thr Pro Arg Glu
            660                 665                 670
Asp
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